SECTION 5.3000. GEOLOGIC HAZARDS OVERLAY DISTRICT (/GHO)

Section 5.3005. Purpose

The purpose of the Geologic Hazards Overlay (GHO) is to minimize building hazards and threats to life and property in areas of identified geologic hazards. This purpose is achieved by basing County decisions on accurate geologic and soils information prepared by qualified professionals.

The provisions and requirements of this section are intended to provide for identification and assessment of risk from geologic hazards, and to establish standards that limit overall risk to the community from identified hazards to a level acceptable to the community. Development in identified hazard areas is subject to increased levels of risk, and these risks must be acknowledged and accepted by present and future property owners who proceed with development in these areas.

Section 5.3010. Applicability

This section applies to all development in the following potentially hazardous areas:

1) Areas subject to mass wasting, including:
    (A) All lands partially or completely within an inventoried landslide or scarp flank as depicted in the following studies:
        i. *Landslide Inventory, Susceptibility Maps, and Risk Analysis for the City of Astoria, Clatsop County, Oregon,* Oregon Department of Geology and Mineral Industries (DOGAMI), Open-File Report O-13-05.
        ii. *Landslide Inventory Map of the Coastal Portion of Clatsop County*, *Oregon,* DOGAMI, Open-File Report O-21-10.
        iii. *Landslide Hazard and Risk Study of the U.S. Highway 30 Corridor, Clatsop and Columbia Counties, Oregon*, DOGAMI, Open-File Report O-12-06.
    (B) All lands partially or completely within "high" and "moderate" susceptibility to shallow landslides, deep landslides, or any combination thereof, as depicted in the following studies:
        i. *Landslide Inventory, Susceptibility Maps, and Risk Analysis for the City of Astoria, Clatsop County, Oregon,* DOGAMI, Open-File Report O-13-05.
        ii. *Landslide Hazard and Risk Study of the U.S. Highway 30 Corridor, Clatsop and Columbia Counties, Oregon*, DOGAMI, Open-File Report O-12-06.
    (C) For any area outside the boundaries of the studies listed in (A) and (B), above, all lands partially or completely within categories of "very high" susceptibility to landslides in the *Statewide Landslides Susceptibility Overview Map of Oregon*, DOGAMI, Open-File Report O-16-02.
2) Ocean Front Lots, as defined in Section 1.0500 (see "Lot Types").
3) The Beach and Dune Hazard Area as defined in Section 5.4020.
4) Any other documented geologic hazard area on file, at the time of inquiry, in the office of the Clatsop County Community Development Department.
5) The publications referenced above are not intended to be used as site-specific analysis tools. The County will use these publications to identify when a Geologic Hazard Permit is required on a property prior to development. The determination of whether a property is located in one of the above referenced potentially hazardous areas shall be made at the sole discretion of the

Community Development Director. The mapping that forms the basis for the identification of the above areas may be generalized in nature. A specific site may not include the characteristics for which it is mapped. In these circumstances, the Director may grant a waiver from the requirements of Section 5.3000. The waiver shall be in the form of a written finding. The finding shall be based on a report, from a professional specified in Section 5.3020, detailing the basis for the determination that the site does not contain the identified potentially hazardous geologic condition.

Section 5.3015. Geologic Hazard Permit Requirements

All persons proposing any activity requiring a development permit on property located in potentially hazardous areas identified in Section 5.3010 shall obtain a Geologic Hazard Permit.

1) An application for a Geologic Hazard Permit shall be on forms provided by the County and shall include a Geologic Hazard Report prepared in conformance with the requirements of Section 5.3020.
2) Before a development permit can be issued, the Geologic Hazard Report must be approved as part of the development permit approval process.
    (A) Where a Geologic Hazard Report recommends that additional site investigations, such as borings or test pits, are undertaken, the application for a Geologic Hazard Permit will be deemed incomplete until the results of those investigations have been provided to the County.
    (B) Where an application is made for a subdivision or a planned development located in an area identified in Section 5.3010, a Geologic Hazard Report in conformance with Section 5.3020 shall be prepared. The Director may also require a Geologic Hazard Report in conjunction with a proposed zone change.
3) Application for a Geologic Hazard Permit may be made concurrently with an application for a development permit.
4) Exemptions: The following development activities are exempt from the requirement for a Geologic Hazard Permit:
    (A) Maintenance, repair, or alterations to existing structures that do not alter the building footprint or foundation and do not constitute substantial improvement as defined in Section 1.0500.
    (B) Exploratory excavations under the direction of a certified engineering geologist or registered geotechnical engineer;
    (C) Site evaluations, installation, and repair of onsite sewage disposal systems;
    (D) Construction of structures for which a building permit is not required;
    (E) Excavation which is less than two feet in depth, or which involves less than twenty-five cubic yards of volume;
    (F) Fill that is less than two feet in depth or that involves less than twenty-five cubic yards of volume;
    (G) Forest operations subject to regulation under ORS 527 (the Oregon Forest Practices Act);

(H) Maintenance and repair of public and private roads, streets, parking lots, driveways, culverts, and utility lines, provided the work does not extend outside the existing right-of-way boundary;
(I) Maintenance and repair of utility lines, and the installation of individual utility service connections;
(J) Emergency response activities intended to reduce or eliminate an immediate danger to life, property, or flood or fire hazard; and
(K) Beachfront protective structures subject only to regulation by the Oregon Parks and Recreation Department under OAR Chapter 736, division 20.

Section 5.3020 Geologic Hazard Report Requirements

For the purposes of Section 5.3000, Geologic Hazard Report refers to engineering geologic reports, geotechnical reports, and geotechnical engineering reports.

1) Geologic Hazard Reports required pursuant to this section shall be prepared consistent with standard geologic practices employing generally accepted scientific and engineering principles, and shall at a minimum contain the applicable provisions outlined in the Oregon State Board of Geologist Examiners publication "Guidelines for Preparing Engineering Geologic Reports," 2nd Edition, 5/30/2014 or other published best practice guidelines for engineering geologic or geotechnical engineering reports, consistent with current scientific and engineering principles. Reports shall reference the published guidelines upon which they are based.
2) For Ocean Front Lots, Geologic Hazard Reports shall address the criteria and development standards of the Beach and Dune Overlay District (BDO) listed in Section 5.4000, as applicable.
3) Geologic Hazard Reports required by this section shall include the following from the preparer(s) of the report:
    (A) A statement that all the applicable content requirements of Section 5.3020 have been addressed or are not applicable to the review. An explanation shall be accompanied with any requirement identified as not applicable;
    (B) A description of the qualifications of the professional(s) that prepared the report. If multiple licensed professionals contributed to the report, each professional shall individually sign and stamp their own work products; and
    (C) A statement by the preparer(s) that they have the appropriate qualifications to have completed the report and all its contents.
4) All Geologic Hazard Reports are valid for purposes of meeting the requirements of Section 5.3000 for a period of five (5) years from the date of preparation. Such reports are valid only for the development plan addressed in the report. Clatsop County assumes no responsibility for the quality or accuracy of such reports. Within that five-year period, the Community Development Director can require at their discretion an addendum by a qualified licensed geo-professional certifying that site conditions have not changed from the original report. If site conditions have changed, a new Geologic Hazard Report shall be required.

Section 5.3025. Geologic Hazard Permit Review

An application for a Geologic Hazard Permit shall be reviewed under a Type I procedure. Decisions shall be based on compliance with the following standards:

1) The Geologic Hazard Report shall satisfy the standards listed in Section 5.3020; and
    (A) The conclusions of the Geologic Hazard Report support a finding that there are no adverse effects of the site's geologic characteristics on the proposed development and the proposed site modifications will not adversely affect geologic conditions and processes in the immediate area; or
    (B) The conclusions of the Geologic Hazard Report support a finding that if specified actions are taken to address an identified potential hazard then the effects of the site's geologic characteristics on the proposed development will be at an acceptable level and the effects of the proposed site modifications on the geologic conditions and processes in the immediate area are at an acceptable level.
2) Specific recommendations contained in the Geologic Hazard Report shall be incorporated into the approved Geologic Hazard Permit. Based on content, recommendations and conclusions of the geotechnical report, the decision-maker may apply other conditions to the issuance of a Geologic Hazard Permit which are necessary to ensure compliance with the provisions of this section or with any other applicable provisions of the LAWDUC.
3) The specific recommendations contained in the Geologic Hazard Report, and conditions applied to the Geologic Hazard Permit shall be incorporated into the plans and specifications of the development which is the subject of the development permit.

Section 5.3030. Independent Review

The Community Development Director may require an evaluation of a Geologic Hazard Report by another expert of their choosing. As part of its review of a land use application located in an area subject to Section 5.3010, the Hearings Officer, Planning Commission, or Board of Commissioners may also require, at the applicant's expense, an evaluation of a Geologic Hazard Report that was prepared in conjunction with the land use application. The results of that evaluation shall be used in making the final decision on the effected land use permit. Independent review may be necessary when there is concern that there may be a conflict of interest in the geo-professional's work; the results of the Geologic Hazard Report substantially differ from previous reports or known site conditions; the data within the report do not appear to support the conclusions; the field work or report appears to be incomplete; or if the decision-maker cannot obtain satisfactory answers to questions or requests for additional information from the geo-professional necessary to process the permit application.

Section 5.3035. Development Standards

The review and approval of development permits in areas subject to the requirements of this section shall be based on the conformance of the proposed development plans with the following development standards. Conditions of approval may be imposed on the development permit to assure that the development plan meets the standards of this section and to prevent the creation of a hazard to public or private property.

1) Site Plan Information Required: In addition to the information required for a development permit, the site plan shall show where tree removal, clearing, grading, excavation or filling is to occur, the area where existing vegetative cover will be retained, the location of any streams and wetland areas on immediately adjacent to the property, and the general direction of slopes. A statement shall be provided summarizing the extent of land clearing and grading and the quantity of cut and/or fill material involved.
2) Preparation of Grading Plan: Based on the findings and conclusions of the Geologic Hazard Report, the decision-maker may require that a grading plan prepared by a registered engineer be submitted with the application for a development permit. The decision-maker may require that such a grading plan, in addition to information required by Section 5.3035(1) include the following additional information:
    (A) Existing and proposed contours of the property, at two-foot contour intervals;
    (B) The location of the existing structures and building, including those within twenty- five feet of the property;
    (C) The location of all surface and subsurface drainage devices to be constructed; and
    (D) Design details of proposed retaining walls.
3) General Standards: The proposed development plans shall meet the following general standards:
    (A) Natural vegetation and trees will be protected and retained wherever possible;
    (B) To the extent possible, roads and driveways shall follow the natural contours of the site; and
    (C) An erosion control plan shall be prepared and implemented in conformance with the requirements of Section 3.2000.
4) Cuts: Proposed cuts shall meet the following standards:
    (A) The site development shall be designed to minimize the need for cuts.
    (B) The slope of cut surfaces shall not be steeper than is safe for the intended use and shall not be steeper than two horizontal to one vertical unless an engineering report finds that a cut at a steeper slope will be stable and not create a hazard to public or private property;
    (C) Cuts shall not remove the toe of any slope where a potential for landslide exists;
    (D) Cuts shall be setback from property lines so as not to endanger or disturb adjoining property; and
    (E) Retaining walls shall be constructed in accordance with the Oregon Structural Specialty Code.
5) Fills: Proposed fills shall meet the following standards:
    (A) The site development shall be designed to minimize the need for fill.
    (B) The slope of fill surfaces shall not be steeper than is safe for the intended uses and shall not be steeper than two horizontal to one vertical unless an engineering report finds that a steeper slope will be stable and not create a hazard to public or private property. Fill slopes shall not be constructed on natural slopes steeper than two horizontal to one vertical.

(C) Fill shall be setback from property lines so as not to endanger or disturb adjoining property.

(D) The ground surface shall be prepared to receive fill by removing vegetation, noncomplying fill, topsoil and other unsuitable materials, and scarifying to provide a bond with the new fill.

(E) Structural fill shall be designed by a registered civil engineer in accordance with standard engineering practices.

6) Drainage: The following standards shall be met:

(A) Proposed grading shall not alter drainage patterns so that additional storm water is directed onto adjoining property.

(B) Cut and fill slopes shall be provided with subsurface drainage as necessary for stability.

(C) The site grading and drainage improvements shall be designed to carry both concentrated water and surface sheet flow water to the nearest practical drainage way, as specified by the decision-maker.